



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|---------------------|------------------|
| 10/602,988 | 06/25/2003 | Anthony J. Wasilewski | A9286 | 5349 |
| 5642 7590 04/01/2009 SCIENTIFIC-ATLANTA, INC. INTELLECTUAL PROPERTY DEPARTMENT 5030 SUGARLOAF PARKWAY LAWRENCEVILLE, GA 30044 | | | | |
| EXAMINER | | | | |
| CHAL LONGBIT | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2431 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 04/01/2009 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

Office Action Summary**Application No.**

10/602,988

Applicant(s)

WASILEWSKI ET AL.

Examiner

LONGBIT CHAI

Art Unit

2431

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Currently pending claims are 1 – 20.

Response to Arguments

2. Applicant asserts that “for a proper rejection under 35 USC § 112(1), MPEP2163 indicates that the examiner has the initial burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in the original disclosure a description of the invention defined by the claims” (Remarks: Page 7 / 4th-Para). Examiner respectfully notes there is *no new matter issue* regarding whether “applicant was in possession of the claimed invention as a whole *at the time the application was filed* (as per disclosure of "claims or abstract" of this instant application filed on 6/25/2003)”; however, the parents do not support the instant claims since there is no disclosure of the invention such as partial encryption of the same data stream using two different methods/algorithms (see detail below @ Item# 3) and accordingly, prior-art rejections, Cadelore / Unger, were made as per claimed priority dates on the first non-final submitted on 11/18/2008, which includes a set of dual (i.e. two different) 102(e) rejections, on page 3 / 4, where one reference is Cadelore (i.e. U.S. Patent 7,376,233) and the other reference is Unger (i.e. PG-PUB 2003/0026423 or U.S. Patent 7,336,787).
3. As per claim 1, Applicant refers to DES and 3DES of Figure 3 in conjunction with associated disclosures and asserts “it is clear that the specification supports the above-recited claim 1 elements” (Remarks: Page 9 / 1st Para). Examiner respectfully disagrees because, according to Figure 3, a content key (i.e. Control Word (Element 319)), after being generated by a random number generator RNG (Element 317), is protected by using 3DES encryption technique (Element 321) and subsequently create a ECM message (Element 323) – this is

simply a key-encryption-key technique (i.e. a content key encrypted by 3DES encryption). Thereby, the priority dates of the parent applications do not support the disclosure of partial encryption of the same data stream using two different methods/algorithms, as recited in the claim (see @ Item# 2), such as *"encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream and encrypting a second portion the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method"* and as such Applicant's arguments are respectfully traversed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 12 and 15 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by **Candelore et al.** (U.S. Patent 7,376,233) – *with incorporated by reference* of **Unger et al.** (U.S. Patent 2003/0026423).

- ✓ **PART – I** (@ Claim 1, 7 and 15): **Candelore** reference for U.S.C. 102(e) Rejection
- ✓ **PART – II** (@ Claim 1, 7 and 15): **Unger** reference for U.S.C. 102(e) Rejection

PART – I (@ Claim 1, 7 and 15): Candelore reference for U.S.C. 102(e) Rejection

As per claim 1, 7 and 15, Candelore teaches a method for providing a program in a conditional access system, the method comprising the steps of:

selecting a digital bit stream from a plurality of digital bit streams (Candelore: Column 15 Line 34 – 35 (e.g., claim 1) & Column 3 Line 51 – 62, Column 6 Line 16 – 22 and Column 4 Line 3 – 16: PID is used by the selective encryption encoder to determine which packets are to be encrypted);

encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream (Candelore: Column 15 Line 43 (e.g., claim 1));

encrypting a second portion the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method (Candelore: Column 15 Line 46 (e.g., claim 1));

multiplexing the first encrypted stream, the second encrypted stream, and the plurality of digital bit streams to provide a partially-encrypted stream (Candelore: Column 15 Line 48 – 51 (e.g., claim 1); and

transmitting the partially-encrypted stream (Candelore: Column 15 Line 52 (e.g., claim 1).

PART – II (@ Claim 1, 7 and 15): Unger reference for U.S.C. 102(e) Rejection

As per claim 1, 7 and 15, Candelore / Unger teaches a method for providing a program in a conditional access system, the method comprising the steps of:

selecting a digital bit stream from a plurality of digital bit streams (Unger: Para [0055] – [0068] & Table 1 and Figure 6);

encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream (Unger: Table 1 and Figure 6 / E318);

encrypting a second portion the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method (Unger: Table 1 and Figure 6 / E324);

multiplexing the first encrypted stream, the second encrypted stream, and the plurality of digital bit streams to provide a partially-encrypted stream (Unger: Table 1 and Figure 6 / E322 & Para [0053] – [0058]); and

transmitting the partially-encrypted stream (Unger: Figure 6).

As per claim 2 and 16, Candelore / Unger teaches a portion of the selected digital bit stream is encrypted, wherein the encrypted portion and an unencrypted portion of the selected digital bit stream are combined with the plurality of digital bit streams (Candelore: Column 15 Line 51 – 52) & (Unger: Table 1 and Figure 6 / E322 & Para [0058] Line 13 – 16).

As per claim 3, 6, 9, 12, 17 and 20, Candelore / Unger teaches the selected digital bit stream includes a plurality of packets, and wherein each packet includes a packet identifier identifying whether the packet is at least one of a video stream, an audio stream, and a data stream (Candelore: Column 3 Line 51 – 62, Column 6 Line 16 – 22 and Column 4 Line 3 – 16) & (Unger: Table 1, Para [0010] Line 1 – 7, Para [0037] Line 1 – 3 and Para [0047]: there are nine program digital bit stream, as shown in Table 1, constitutes video, audio and auxiliary data packet having a particular packet identifier).

As per claim 4 and 18, Candelore / Unger teaches the selecting step selects the digital bit stream by identifying a predetermined packet identifier (Candelore: Column 3 Line 51 – 62,

Column 6 Line 16 – 22 and Column 4 Line 3 – 16) & (Unger: Para [0010] Line 1 – 7, Para [0037] Line 1 – 3, Para [0055] & Table 1: some implementation, as disclosed by Unger, of partial dual encryption involve duplicating only certain packets tagged with a given packet identifier PID – i.e. the critical packets required for encryption that involves duplicating to achieve dual encryption purpose are chosen only for those packets identified by (i.e. tagged with) a particular packet identifier PID).

As per claim 8 (and claims 5, 10, 11 and 19), Candalore / Unger teaches each of the plurality of elementary bit streams includes a plurality of packets, wherein each packet includes a packet header that is indicative of at least one of a video stream, an audio stream, and a data stream (Candalore: Column 3 Line 51 – 62, Column 6 Line 16 – 22 and Column 4 Line 3 – 16) & (Unger: Table 1 and Para [0010] & [0047]: there are nine program digital bit stream, as shown in Table 1, constitutes video, audio and auxiliary data packet having a particular packet identifier).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candalore et al. (U.S. Patent 7,376,233), in view of Vantalón et al. (U.S. Patent 7,216,358).

As per claim 13 and 14, Candelore / Unger does not disclose expressly the first encryption method comprises 3DES and the second encryption method comprises DES.

Vantalon teaches the first encryption method comprises 3DES and the second encryption method comprises DES (Vantalon: Column 8 Line 31 – 37 & Figure 11: a cipher processor includes a conditional access scrambler / descrambler of DES and 3DES encryption / methods / formats).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Vantalon within the system of Candelore because (a) Candelore teaches enabling conditional access system with more than one encryption / scrambling methods (Candelore: Column 2 Line 3 – 5 / Line 65 – 67 and Column 15 Line 43 – 46), and (b) Vantalon teaches a cipher processor includes a conditional access scrambler / descrambler of DES and 3DES encryption / methods / formats (Vantalon: Column 8 Line 31 – 37 & Figure 11).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LONGBIT CHAI whose telephone number is (571)272-3788. The examiner can normally be reached on Monday-Friday 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Longbit Chai/

Longbit Chai E.E. Ph.D
Primary Examiner, Art Unit 2431
03/12/2009